A Journal Devoted to Healthful Living

HEALTH

ESTD. JAN. 1923

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Annual Subscription: Rs. 2. Foreign—Rs. 3. Post paid.

Editorial and Publishing Offices:—

323, Thambu Chetty Street, George Town, Madras.

Vol. XVII. | SEPTEMBER, 1939. | No. 9.

Editorial

MANHOOD

..........."Then a Soldier,
Full of strange oaths and bearded like the pard
Jealous in honor, sudden and quick in quarrel
Seeking the bubble reputation
Even in the Canon's mouth. And then the justice
In fair round belly with good capon lin'd
With eyes severe and beard of formal cut
Full of wise saws and modern instances;
And so, he plays his part" .. ..—*Shakespeare.*

THIS is the period when man enters the threshold of life and makes or mars his future. This is a long period of nearly 40 years, commencing roughly at 20 and ending at 60. He has no mother, father or schoolmaster to guard him and guide him in his actions. He secures what may be called perfect freedom of action and his conscience is his only helpmate. Of course there is his partner in life—his wife—to share his joys and sorrows. It, therefore, becomes incumbent on him to consult her in all matters and do what is right and just and profitable to both. The object of married life is to bring forth progeny, though modern civilization does not fully endorse it. "Laughing children and loving wife are the pleasures of a beautiful life"—so goes the saying. We are here reminded of a conversation in Kingsley's novel "Hereward the Wake" between the hero's two widows of whom one was barren and the other gave birth to a child and lost it. The barren woman exclaimed: "Blessed are the barren that never gave suck unto the young", to which the other one retorted: "Better to have had and

lost than never to have had at all." If a referendum were to be taken, the barren group will form a microscopic minority while those who wish to have children will constitute a big majority, in the whole world, whether civilized or savage. But too many children, beyond the capacity of man to foster and protect and of the woman to bear and nurture, ought to be deprecated. Proper spacing out of children is the ideal for a family to adopt, if the couple and the children born of their wedlock, should be happy and healthy. The question naturally arises: "What ought to be the interval or the period of abstention between one child and another?" By a simple arithmetical calculation it may be put down as roundly three years; ten months when the child is in the mother's womb, ten months at her breast, ten months for their rest. This means two years and six months, to which 6 months may be added for rounding *i.e.* three years in all. The period of fertility of a woman from menstruation to menopause may be put down as 25 years. So, normally, a woman can be vouchsafed 8 children, during her life-time, provided she is in the best of health, both physically and mentally and does not suffer from material want. There is a Tamil proverb which says: "Not all the seeds that are sown will be harvested nor all the children that are born will survive". Due allowance must therefore be made for casualties and the like and if a family could boast of half-a-dozen surviving children, that is indeed a blessed family. But it could not be called a blessed family if the parents and children should suffer privation and starvation. It is a miserable family then. Dharmaputhra was once asked: "Who is the most miserable man on earth?" To which he replied: "Certainly, the man with a large family". This is true indeed. Honest endeavours must be made to augment the income of the family, but if it should be static or inelastic, the endeavour must be the other way about, to restrict the number of children to two or three, barring of course, brith-control methods. A happy and healthy family should eschew from their budget all luxuries, such as tea and coffee, tobacco and alcohol. These things have in modern times begun to upset, to a considerable degree, the material, mental and moral equilibrium of the household, whether it consists of humble farmers or labourers or midling clerks or merchants, sailors or soldiers or high class judges or statesmen.

Tea and coffee are recent intruders in Indian families. Man is a creature of habit and there are some good habits and bad habits. Good habits take a long time to acquire but bad habits are acquired almost immediately. It was the Portuguese who first introduced tea into Europe in the sixteenth century and at about the same period, Coffee was also introduced though the Persians had received it from Ethiopia, as early as the eighth century. Tea contains gum, grape-sugar, tannin and theine, while coffee ready for use possesses fat and volatile oil, sugar (such as may be obtained from grape, honey and most acid fruits) dextrine and caffeine. "Tea and coffee habits have done as much harm to the health of the people as liquors and tobacco and though less indictable from the point of view of morals, there can be no doubt that much feminine peevishness, irritability and 'tantrums' are due to the stimulating effects of these drinks. One of their worst effects is to appease hunger for real foods so that the habitual user of tea or coffee may come to lack true nourishment. The normal hunger has been suppressed by the feeling of satisfaction inspired by tea or coffee"—such is the considered opinion of eminent medical men and it is for the people, therefore, to choose between nourishing

food and a stimulating drink. A good deal of money can be saved by eschewing tea and coffee and spending it on milk and fruits.

Worse still are the effects of tobacco and alcohol. The use of tobacco is widely prevalent. It was first introduced into Europe by Sir Walter Raleigh. The story goes that when he first appeared in England with a pipe of tobacco in his mouth, his servant, seeing the smoke issuing from his mouth, supposed him to be on fire and threw a bucketful of water on him. The effects of tobacco have been graphically described by a writer thus; "Tobacco is a medicinal plant, just as much as belladonna, stramonium, hyoscyamus etc., all of which belong to the same order, and should not be indulged in by healthy persons any more than cathartics and emetics. It is a very active narcotic and sternutatory (an agent that causes sneezing) and should only be used by neuralgic and catarrhal invalids or those troubled with constipation and then only for a limited time, and by the direction of a physician. Its habitual use by healthy people is attended with injury to the nerve and blood."

The best food for children is Milk food.
It will help them grow to sturdy Manhood.

Thus, the money spent on tobacco in the form of cigars, cigarettes etc. is a waste and if the tobacco habit is given up, there will be more of radiant health and pleasure at home and less of gloom and misery.

As for alcohol, it is impossible to find adequate words in the dictionary of the English language to express its condemnation. To say that "the evil of alochol is its power to dethrone reason and lead its victim a drivelling captive to poverty, vice and crime and that it enables people to silence the voice of an outraged conscience, to drown the woes which a reckless life has engendered", is only a mild form of condemnation.

We do not wish to proceed further on this subject. Suffice it to say that 'Plain living and high thinking' ought to be the motto of an adult man or woman.

In manhood is combined both the qualities of the robust soldier and the wise judge, according to Shakespeare, in other words physical and mental well-being. Mental well-being includes also spiritual well-being, for if the mind is well-poised, if it possesses the rare quality of love to fellow-beings, it must necessarily lead him to acquire that precious quality, love to God. Love to God and love to fellow-beings are the greatest virtues of Manhood.

Causes and Prevention of Blindness

By

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Causes of Blindness.—1. Syphilis and Gonorrhœa.

2. Trachoma (Granular lids)

3. Keratomalacia and Night Blindness.

4. Use of dangerous and irritant drugs.

5. Ignorance, poverty and illiteracy.

6. Babies' sore eyes.

7. Accidents.

8. Cataract.

9. Glaucoma.

10. Small-pox.

Preventive Measures. — 1. The hands and face should be kept clean (by soap and water).

2. The eyes should be protected from dust and flies by wearing protective goggles etc. (to prevent conjunctivitis, corneal ulcers).

3. Do not use towels, clothes or water, used previously by others. This will avoid infectious diseases of the eye such as Trachoma, Conjunctivitis, Ophthalmia Neonatorum etc. from spreading.

4. Proper nutritious diet should be given daily such as plenty of milk, butter, ghee, tomatoes, green leafy vegetables to prevent deficiency diseases like Keratomalacia, Night Blindness etc.

Vaccination prevents Small-pox and thereby blindness.

5. Get yourself vaccinated and revaccinated every 5 years when small-pox breaks in your locality to avoid the dreadful effect of small-pox.

6. Venereal diseases like Syphilis and Gonorrhœa should be thoroughly treated by a qualified doctor, (to avoid G. Ophthalmia, Iritis, Keratitis, Optic Neuritis, Choroiditis etc. It is a regular menace not only to the sufferer but also to his offspring if early steps are not taken.

7. Advise people having venereal diseases not to marry till they are thoroughly cured to avoid the disease being acquired by their offsprings.

8. Every expectant mother should consult a lady doctor before delivery.

9. Give strict instructions to midwives to put silver nitrate 1 % into

babies' eyes soon after birth. This is very important. By this simple procedure, the percentage of blindness has been reduced greatly. (This will avoid babies from getting sore eyes and ophthalmia neonatorum).

10. Avoid playing dangerous games which may involve injuries to the eye.

11. Beware of crackers and avoid them always.

12. If you are not able to see the printing matter of your books or objects at a distance, consult an eye doctor.

13. Always read in a good light. The light should come from behind and over one of the shoulders. Do not face a powerful light or a midday sun.

14. If your sight is failing, or if you see double objects while looking at an object or if you have regular headache and watering of the eyes, while you read, consult an eye doctor.

15. Learn how to use your eyes, the right way of seeing, reading etc; how to wash your eye with saline or boric lotion, boric fomentations. Always keep with you some antiseptic eye drops or eye ointments (Argyrol, Collargol etc).

Preventive Measures for Defective Eye Sight.—1. Daily practise with a Snellen test card at a distance. Read from top to bottom distinctly and clearly.

2. Daily gaze at the early morning sun for 10 minutes.

3. Practise relaxation exercises (shifting, blinking, palming, central fixations etc.) if the myopia has already set in.

Hypermetropia (Long Sight) and Presbyopia (Old Sight). — Practise relaxation exercises which will prove very useful.

Sewage in Madras City

Decision to Manufacture Compost-manure.

The Standing Committee (Taxation and Finance) of the City Corporation has accepted the proposal for the construction of a laboratory in Kilpauk to carry out in part Dr. Fowler's scheme of sewage disposal in the City. The construction of the laboratory is estimated to cost Rs. 15,000. A sum of Rs. 6,000 will be set apart for equipment and staff.

It is proposed to conduct experiments on four million gallons of sewage pumped from the Kilpauk sewage station, which comes to one-sixth of the City's total sewage disposal.

The proposal is to let the effluent into the Oteri Nullah (canal) and, if it proves harmless, to extend the scheme to the whole City. The compost will be sold as manure.—*Madras Municipal Review.*

HOW TO KEEP FIT

By Dr. S. N. Malhotra,

Chief Medical Officer and Sanitary Commissioner, Karauli State, Rajputana.

It is really astonishing why a large part of the population in India is not keeping as good a health as they should. It is not because of poverty alone, but it is also through neglect of certain simple rules which cost nothing but which contribute very largely towards maintaining good health. They are the following :

1. Get up early in the morning: take a glassful of cold water kept overnight before visiting the bath room ; massage the body, and then have a cold bath. This will cure you of chronic constipation which is the root cause of so many diseases of serious nature. This will save your pocket too, as you will have to consult a doctor less often.

Pay special attention to your teeth. Here is a Harijan Uplift Worker cleaning the teeth of a Harijan boy thereby inculcating in him health habits.

2. Pay special attention to your teeth. Brush them daily with a tooth brush, using some tooth paste, or lotion, once on getting up, and then after every principal meal. Habit of using *datan* among the Indians is very good, and that is the reason why these people retain a good set of teeth to a long age. If teeth are bad, nourishment will be poor no matter how nourishing your articles of food may be.

3. Keep erect while walking, sitting or standing. Many school boys become victims to many respiratory diseases by not obeying this rule. Erect posture ensures good lung expansion and freedom from disease.

4. Make use of milk as much as you can ; and of its

preparations like dhai, butter, cheese, cream etc. Milk is a perfect food and nothing can replace it.

5. Use more of green vegetables and fruits. You will be saved from quite a number of diseases due to deficiency of vitamins.

6. Let your diet be as simple as possible. Strength does not come from what you eat ; but from what you *assimilate*. *The simpler the diet* the better the assimilation; the richer the diet, the greater the strain on the assimilative organs. In fact, the body needs for health much less than what we eat. Many diseases are being caused by overeating than by under-eating.

7. Avoid tea, coffee, liquors, and other narcotics. It is a very commendable step, to stop liquors. Many families have been ruined by it. Many young men have been killed by excess of liquor. They can be used more as a medicine than as a daily routine.

8. Chew your food well. God has given us thirty two teeth so that we may chew our food 32 times. Take small mouthfuls and take enough time over your meals. Do not consider this unimportant. Time spent over meals will be well rewarded. Nature is not easily offended. It forgets and forgives ; but when it punishes, it punishes heavily.

9. Do not lose your temper while eating. By doing so you send more blood to your brains, whereas your stomach needs more amount. Digestion will thus be upset.

10. Go to bed early and get up early. One hour's sleep before midnight is better than two hours' sleep after it. During sleep, body regains what it loses during waking hours. Insomnia is likely to develop from this habit, so always avoid late hours.

11. Have control over your senses. Shun society of people of doubtful character ; avoid cinema films of exciting character.

12. Be regular in all that you do.

There are many more things which can be given as important for health, but the simple ones given above if followed, will give good health, cheerful disposition, and long life.

" Fitness for What ?"

More and more it is being recognized in responsible quarters that education which does not include physical and moral training falls short of what true education should be. Man is made of body, mind and spirit, and only if all the three are properly and harmoniously developed can true manhood be attained. As a leader writer in the *Times* points out :

> "The award of certificates for the successful achievement of standards is an accepted part of the educational system. They certify standards of ability and knowledge ; they are valued by pupil, teacher, and employer. Why then should not physical fitness and the training of the body be placed on a level with general education and the fitness of the mind ?"

When a boy leaves school, there is no reason why he should not take away with him, not only certificates of character and education, but also one of proved physical health and development. He would thus face life with every advantage, and so be a much greater asset to himself, to his family, to his employer, and to the community at large. —*Good Health* (*Lond.*).

HOW HAS MODERN BACTERIOLOGY HELPED THE CONTROL OF DISEASE*

By R. NARAYANAN,
Thyagaraya Nagar, Madras.

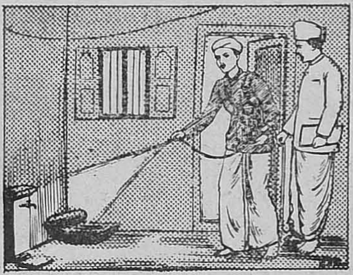
BACTERIOLOGY is an infant science as compared with the other sciences and dates back to about sixty years from now. It has profoundly altered our conceptions of the method of transmission of disease and has also provided the physician with an armamentarium for combating diseases of bacterial origin. Bacteria are accepted as being among the lowest forms of vegetable life, devoid of chlorophyll, with imperfectly differentiated nucleii and multiplying by division. Some are motile; others are not. Of comparatively simple structure, they can be divided into two main subdivisions, the lower and the higher forms. The lower forms are the more numerous. They are minute and do not measure more than one-twenty five thousandth of an inch, at least in one direction. These include the globular cocci, the rod-like bacilli, the curved spirilla and the filamentous spirochaetae. The higher forms show advance on the lower in that they consist of longer, septate filaments with sheaths and containing specialised reproductive cells.

The growth of Bacteria in Nature depends on five main factors namely: Food supply, Moisture, Relation to gaseous environments, Temperature and Light. The chief effect of bacterial action in Nature is to break up into more simple combinations, the complex organic substances which form the bodies of plants and animals or which are excreted by them. It was Louis Pasteur who first proved that Bacteria were responsible for the very complicated process of putrefaction by adopting some method of killing all the bacteria present in it viz: by sterilization. Many processes not usually referred to as putrefactive are, however, bacterial in their origin *e.g.* the souring of milk, the butter becoming rancid etc. Many processes of economic importance are also the result of bacterial action such as the ripening of cheese and of cream and the curing of tobacco, the formation of curds etc.

A certain comparatively small number of Bacteria have been proved during recent years, to be the causal agents in certain disease processes occurring in men, animals and plants. Most bacteria associated with disease processes and proved to be the cause of the latter, can be and have been grown in artificial media outside the respective hosts. It is this property that has been utilised by the Bacteriologist to press the harmful bacteria into his service for beneficial purposes. Pleomorphism is a common feature of

* Awarded the II Prize for College Students in the Health Essay Competition, held by National Health Association of S. India, 1938.

Bacterial morphology and is particularly marked in prolonged artificial culture. Some bacteriologists have even postulated a life cycle among the bacteria. A filter passing stage has even been described. It has been known that Bacteria in culture are apt to undergo a process of Autolysis—disintegrating and disappearing sometimes. During recent years, this rapid lysis set up by external agents or stimulii is transferable to other cultures by the products of the lysis. Cultures of Bacteria filtered through fine porcelain filters were able to produce lysis after such filtration. This is probably due to an ultramicroscopic virus to which the name Bacteriophage or merely Phage is given. This phage, as we shall see later, has come to be applied in curative and preventive medicine against Cholera, Typhoid and Dysentery.



'Disinfection' will rid the house of disease-producing germs. The Sanitary Inspector is seen above disinfecting an infected house.

Infective diseases of bacterial origin are :—

(1) *Intestinal*:—Cholera, Typhoid, Dysentery, Diarrhoea.

(2) *Lungs*: — Tuberculosis, Influenza, Pneumonia.

(3) *Wounds etc.* : — Staphylococcal and streptococcal infections.

(4) *Throat* : — Pharyngitis, Diphtheria, Septic sore throat.

(5) *Venereal Diseases.*

(6) *Food poisoning and food infections.*

(7) *Lock-Jaw,* Anthrax, Plague, Relapsing Fever etc.

These have a definite and constant relation to human activities. Man's comings and goings, his habitations and places of work, instruction and recreation, his social and religious behaviour and customs, his marital and sexual conduct, his aggregation or segregation, his travels, festivals, famines, wars, feuds and skirmishes, his emigration and immigration, his trade, commerce and occupation—all these profoundly influence, and powerfully, man's liability to suffer from and to disseminate infective diseases.

There are several factors, primary and secondary, which lead to the spread of infection among the community and to a greater or lesser proportion of deaths among those affected. Three of the primary factors are: (1) the virus of variable virulence and infective power, (2) the efficient means of transmission and (3) the susceptibility or resistance of the individuals composing the community exposed to risk. In other words, the seed, the sower and soil. Thus, Modern Bacteriology can be likened to Modern Agriculture in its systemic and applied phases. With the increase in the knowledge of the causal organisms found in bacterial diseases, it has been found possible, (1) to steer clear of the transmitting agent, (2) to acquire sufficient immunity against the poison of the infective agent, even if introduced—prophylactic inoculation of a polyvalent vacine, (3) to get rid of the

poison introduced by the infective agent by means of curative injections of autogenous or polyvalent bacterial vaccines and sera and (4) to obtain suitable bacteriophages which would be specific in their action against virulent organisms of the respective diseases.

To the improved technique and methods of Modern Bacteriology, then, we owe the great strides that have been made in the detection and control of epidemics due to bacterial infection chiefly, Cholera, Plague, Diphtheria etc. The prompt detection and isolation of cholera vibrios from stools of patients and carriers and from water contaminated by them and possibly also from exposed milk and food, the detection of plague bacilli in rats that begin to die even before the human epidemic appears, the finding of specific spirochaetal and other poisons in venereal subjects and of specific germs in diphtheria, leprosy and Tuberculosis etc., of dysentery bacilli in stools of patients and carriers and a large number of the delicate tests employed in the detection of other diseases would mark a new era in the prevention and control of disease. Not content with detection, the clever bacteriologist, has, with impunity, pressed these very enemies of Man to help in the amelioration and cure of the diseases caused by them. To this end, he has, like the keen agriculturist, studied all the factors that expose man's life to the insidious inroads of the microbes.

The history of epidemics is but the epitome of the failure of prophylaxis due mainly to ignorance. Before the advent of Modern Bacteriology, human sacrifice ordained to appease the anger of the diety and the burning of chillies in the streets to dispel miasmas had, alike, failed to check the spread of Small-pox, Plague, etc. Knowledge of etiology is the first necessity of prophylaxis and modern bacteriology has been able to unravel the mysteries which surrounded the outbreak and spread of epidemics and pandemics of various diseases. Preventive Medicine is bound up at every point with general and social questions of Education, Economics and Moral Welfare. Even closer is the association of the progress of preventive with that of curative medicine, particularly in the realm of Bacteriology. It is customary to say that the attack on the infectious diseases should be directed towards the weakest link in the chain of infection. This is true but only in a limited sense as each particular case will have to be dealt with in relation to the most vulnerable factor. Prophylaxis, quarantines and sanitary cordons are all sanitary expedients and measures which have for their common basis, the fundamental concept of a bacteria-borne infection which can be diagnosed and effectively prevented from spreading. The transmitting agent or the sower is the person against whom the most successful mode of prophylaxis can be directed. Generally speaking, the longer the period during which the germ lies outside the body of the host, the easier and more successful has been the mode of attack. This has been particularly very successful in alimentary infection. Advances in modern bacteriological technique are believed to have made very quick detections and isolations possible

enabling the health authority to trace and spot the carrier and launch energetic preventive measures forthwith.

Turning to the third factor, 'the soil', Bacteriology has enabled us to alter the characteristics of the 'Soil' in such a way as to render it barren or inimical to the sprouting of the seed, even if planted. This, in Medical parlance, is known as "the raising of the resistance to infection." This resistance is of a two-fold nature: (1) natural non-specific resistance (2) acquired specific resistance. The specific immunisation of the individual and so, of the herd, is perhaps the greatest achievement of Modern Bacteriology. It was indeed by this means, that Edward Jenner effected at one stroke, what was probably the greatest single success of preventive medicine. And actually, the prevention of typhoid and cholera by means of prophylactic vaccines has been achieved rapidly, effectually and on the largest scale during recent years.

The methods of immunisation are of different kinds :

1. *Active immunisation*:—(*a*) By living but attenuated virus *e.g.* Vaccination, anti-rabic treatment.

(*b*) By whole killed virus injected by the needle *e.g.* Plague, Cholera, Typhoid and orally when fasting *e.g.* Bilivaccine etc.

(*c*) By the use of toxins or other partially purified products *e.g.* Diphtheria, Scarlet Fever injections etc.

2. *Passive immunisation*:—By using immune serum of animal origin or human convalescent serum *e,g.* Tetanus antitoxin ; measles serum etc.

It will thus be seen that, during recent years, modern bacteriology has enabled the physician and the sanitarian to solve the various problems connected with the origin, spread, control and cure of epidemics which had baffled them in the past, that it has revolutionised theories underlying the causation of disease and has, as already stated, also fortunately, provided in many cases, vaccines and sera—bacterial products—for the control and cure of these diseases. Nearly every ill to which human flesh is heir, would now appear to be the outcome of some insidious microbe and its end—product of micro-infernal activity. And it is comforting to know that Homosapiens is not bereft of ingenuity to checkmate the wily moves of B. typhosus or B. pestis and their confederates.

Our Best Doctors

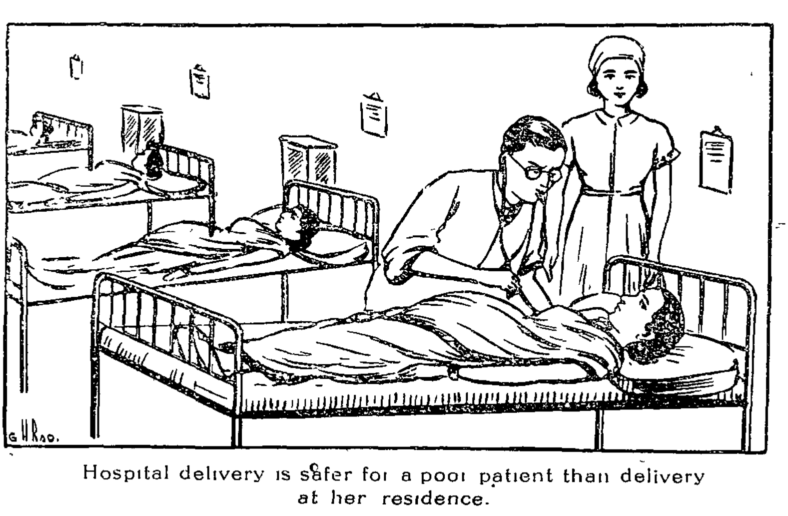
Sun, Air and Water are our best doctors and if we go to them with devotion and faith they will give us much better health than all the doctors can. Let us worship the Sun, Air and Water as our forefathers did by practising Surya-namaskar, Pranayama and Achamana and God is sure to bless us with health, strength and life and help us to do the work assigned by Him in a real optimistic spirit.—*The Indian Naturopath.*

Health During Pregnancy

BY
Dr. J. C. Chatterjee,
L. M. S.,
CALCUTTA.

PREGNANCY and labour are the most important functions of the female reproductive life and should be considered as normal physiological processes. During pregnancy the changes in the maternal organisms are so many that the borderline between health and disease is easily disturbed and pathological conditions appear which may seriously threaten the life of both the mother and the child.

Hence it is necessary to keep the pregnant women under proper care and be on the watch for the appearance of untoward symptoms. The services of an obstetrician should be engaged who will advise her as to her mode of life and will keep a careful watch on the patient at regular intervals, all through pregnancy and will do appropriate treatment immediately and detect any departure from normal. Most of the difficulties and dangers met with during pregnancy, labour and the puerperium are preventable, and if detected early can be easily cured. Thus still births, and high maternal death rate which still exists from hæmorrhages, toxæmias of pregnancy and complications arising during labour and after labour could be very much diminished. Constant enquiries should be made about her health and mode of living and should be allowed to go on in a normal way as much as possible. Care should be taken to see that she gets the proper amount of exercise, amusement and diversion. It is the duty of every physician to gain the confidence of his patient and to give her encouragement whenever he finds her worried in any way. A woman in her first pregnancy, if kept in the hands of a competent and careful physician, will have sufficient peace of mind and comfort and will not worry much about any trouble during confinement. Poor patients should be advised to attend the Ante-natal Department of any Maternity Hospital once a month until the 7th month and twice a week after the 7th month till they are delivered. *Hospital delivery is safer for a poor patient than delivery at her residence.* So



Hospital delivery is safer for a poor patient than delivery at her residence.

arrangement should be made for a bed in a Maternity Hospital.

When a pregnant woman is in charge of a medical man the following should be the routine method of investigation and examination:

(1) Previous history, general and obstetrical *i.e.*, history of acute rheumatism, rickets, tuberculosis, etc. Severe sickness during pregnancy, swelling of legs, fits, hæmorrhage or vaginal discharge. In case of abortions or miscarriage, birth of premature or macerated fœtus or deaths of children occurring early in pregnancy or repeated still-births an attempt should be made to find out the cause. In the absence of any satisfactory cause, the possibility of syphilis should be suspected and the blood of both husband and wife should be examined for Wassermann Reaction.

(2) *History of present pregnancy*, such as menstrual history, date of menstruation,date of quickening, etc., condition of bowels, urine discharge, swelling of legs, piles, varicose veins, etc.

(3) *Examination of the patient* by the several methods of examination which are known as grips with a view to find out the presentation and position of the child, condition of pelvis such as contraction or deformity etc. Urine examinations, blood pressure tests etc., as well as the total quantity of urine passed in twenty four hours should be noted.

(4) Advice as to the hygiene of pregnancy such as exercise, diet, etc.

Exercise.—Regular exercise in the open air should be taken daily, its character will depend on the position of previous habits of the patient and on the nature of her previous pregnancies if she is a multi-para. Labour is a muscular effort and must be prepared for by regular exercise. This is one reason why working women pass through labour with so much less trouble than women in luxurious surroundings. As a general rule violent forms of exercise should be avoided. Fatigue of the mind and body is undesirable and all strains and shocks either muscular or mental must be guarded against. Exercise should consist of ordinary household duties, walking or journey on good roads preferably by less jerky vehicle. Special care should be taken at times corresponding to the suppressed menstrual periods and no active exercise should be taken at this period. In the second half of pregnancy, long journey by railway, long drive over rough roads should be avoided, and poor classes should be cautioned against excessive work specially during the later months as there are several cases of premature labour due to over-exertion.

Diet.– A pregnant woman needs more diet than she requires in ordinary circumstances and in most cases she takes it. The diet should be abundant and nourishing and simple and the patient should be allowed to continue her usual customs; overfeeding should not be allowed. All rich, undigestible and highly seasoned articles of food should be avoided. Excess of meat and nitrogenous food is harmful. Fruits and vegetables are useful in helping to obviate constipation. Plenty of water will help elimination through the kidneys. Special diet is necessary only in conditions

such as toxæmia of pregnancy, anæmia of pregnancy, etc.

Vitamins on Pregnancy. — *Vitamin A* is necessary for growth and has a direct influenee on reproduction. Deficiency of vitamin A produces sterility and a deficiency of this vitamin in the diet of pregnant women may result in abnormal or dead-born babies (Vogt.)

Vitamin A is essential to the individual for the maintenance of body resistance to infection. During pregnancy this is certainly an important factor considering the incidence of diseases like pneumonia and pyelitis as well as the danger of infection during labour and the puerperium.

Vitamin A is present in milk and butter, provided the cows are fed on green food *i e.* green plants. Animals store this vitamin in their liver from which it may be obtained in the oil.

The oils of fishes which feed on green organisms in the sea directly or by eating smaller fishes are particularly rich in this vitamin. Hence the virtue of cod-liver-oil. A and D are present in egg-yolk. Destroyed by direct heat at high temperatures.

Vitamin B_1 (complex):—Vitamin B_1 Antineuritic water soluble present in the outer layer of seeds, which contains the embryo plant and may be removed in milling. It is absent in white flours, but present in wholemeal flours. It is resistant to heat and survives ordinary baking provided the temperature does not go above 100°C. It is present in egg-yolk and commercial preparations made from yeast.

The deficiency of the vitamin causes an increase in the size of the suprarenal and is responsible for much general malaise and lack of vigour in man and a loss of tone in the gastro-intestinal muscles.

Vitamin B (complex) has a definite function during pregnancy and lactation. Moore and Brodie found pyloric obstruction and bleeding in the babies and an increased incidence of post partum hæmorrhage in the mothers where there had been a deficiency in this vitamin. Anæmia and atrophy of ovaries also follow such a deficiency. This vitamin is very useful also during lactation.

Vitamin B_2:—Pellagra preventing. Source similar but not identical with B_1. It is present in egg-white. The antidermatitis factor is thermostable.

Vitamin C :— Antiscorbutic Vitamin C is present in fresh fruits and vegetables and in green leaves and germinating seeds. Oranges and lemons are good sources.

Vitamin C (water soluble) :—The absence of this causes scurvy. It is necessary for the proper development of the offspring. The deficiency of this vitamin causes still-born offspring of the premature and under developed (Ingier). Pregnant guineapigs when fed on deficient vitamin C will show anæmia and lowered calcium content in the teeth pulp (Reyher, Walkoff and Walkoff).

Vitamin D :—The antirachitic vitamin and sunlight are useful during pregnancy. Richardson has shown that bleeding and clotting time is reduced at the time of labour by giving Viosterol which influences calcium and phosphorus metabolism. If given during pregnancy it has slight value in preventing subsequent rickets in the children. From its relation to calcium and phosphorus metabolism

it is evident that vitamin D is very useful in safeguarding the mother during her gestation period *e.g.*, cod-liver-oil, butter, vegetable oil. This Vitamin has a peculia relation to sunlight. Cow's milk is much improved by sunlight. Irradiation by sunlight or ultraviolet light which destroys vitamin A, may cause the production of vitamin D. This is present in yeast and a wide range of lower plants when fresh, but they rapidly lose their vitamin when cut. The absence of vitamin D leads to imperfect calcification of bones (rickets) and of the teeth. The function of vitamin D is to correct any improper balance between the calcium and phosporus intake.

Bourdillon and his co-workers at the National Institute for Medical Research have succeeded by special distillation in preparing a pure crystalline substane "calciferol which has all the properties of Vitamin D.

Vitamin E, present in many vegetable oils, *e.g.* olive oil, is essential to reproduction, the development of the embryo depends upon it. It is also essential to the suckling offspring.

A well balanced diet containing all the vitamins is necessary during pregnancy and lactation. So a generous amount of calcium-containing food, green vegetables and legumes and a quart of milk daily should be given.

Bowels.—The enlarged uterus interferes with the normal intestinal peristalsis and gives rise to more or less marked constipation ; so care should be taken to see that the bowels are moved daily ; strong purgatives should be avoided since they are liable to cause miscarriage. Diet should include plenty of fruits and vegetables which may give a daily evacuation of the bowels. Mild aperients such as cascara sagrada, Pulv. Glycerrhieza Co., Confection of senna or an infusion of senna pods may be prescribed. Phenolphthalein gr. 1 to 3 at night may be given. Liquid paraffin though often prescribed is nauseating and interferes with fat absorption by holding fatty acids in solution and is objected to by many. It may be given to those cases where painful hæmorrhoids are present.

Baths.—Baths to be taken to the extent necessary for personal cleanliness. If possible the patient should take a bath daily and all extremes of temperature should be avoided. The external genitals should be bathed night and morning with tepid water. Vaginal douche should not be permitted unless there is a necessity for it, such as the existence of leucorrhœa. If necessary it should be given at a temperature of 98° F. and at a low pressure.

Clothing. — All garments which exert an undue pressure on any part of the body must be forbidden, specially light corsets, garters, or strings round the waist. In most cases the use of a properly adjusted abdominal belt is of value as it supports the abdominal walls. To those that are in the habit of using a corset, it should be replaced by the specially designed " maternity " corsets. In pluriparous women with lax and separated recti muscles, the properly adjusted abdominal belt is a necessity. It must not be worn too tight. The lower limbs should be warmly clad.

Breasts.—In the later months the nipples should be drawn out with the fingers, so that in shape they become adapted for nursing. Care should be taken not to use undue force and to have perfectly clean fingers. Too violent attempts at forming the nipples, specially when made by untrained hands often result in causing slight lacerations in delicate skins. If the fingers or nipples are dirty, the cracks become infected and mastitis may follow. The patient during the last two months should bathe her nipples night and morning with a lotion which tends to make the skin covering them more resistant. A saturated solution of Borax or boracic acid in 50% alcohol will answer the purpose very well, or it may be bathed with Eu-de-cologne and water (1 to 3). Lanolin or cocoa butter may be rubbed night and morning in the skin of the nipple to make it elastic. If the breasts are washed with soap and water daily and the nipple is dried carefully after each wash it will remain clean. If crusts are present on the nipple it should be soaked with olive oil and then with soap and water.

Care of Teeth.—The teeth should be cleaned after each meal, while carious teeth and sepsis of the gums ought to be carefully attended to. Dental extraction can be performed safely during pregnancy under nitrous oxide anæsthesia if the gas is given with air or oxygen.

Sexual Intercourse.—In healthy persons, if on moderation it does no harm, but where there is a tendency to abortion it should be strictly avoided. In the last month of pregnancy it should be forbidden as there are cases of septicæmia due to sexual intercourse just before the 1st stage of labour.

Urine should be carefully examined at regular intervals, once a month for the first seven months and twice a month or preferably every week during the last three months of pregnancy. It should be examined for the presence of albumin and sugar and also microscopically. If a trace of albumin is detected the amount should be detected daily by means of an Esbach's albumino-meter. If it exceeds 0.5 gram to the liter, or there are symptoms of pre-eclamptic toxæmia, the patient should at once be put to bed at home or sent to a hospital for observation and treatment.

Blood Pressure should be determined and special attention paid to variations in diastolic pressure. A systolic pressure above 140 m. m. should be regarded as a danger signal, specially if the diastolic pressure is likewise elevated to 90 m.m. or more or even albumin or casts be absent from the urine.

Mental Conditions should be carefully watched, and all cases of melancholy, irritation and fright avoided as far as possible, while her surroundings should be such as will promote happiness or an even temperament. She should be kept away as far as possible from all worry and excitement.

Danger Signals During Pregnancy:
—(1) A scanty flow of urine.

(2) Persistent headache.

(3) Disturbance of vision.

(4) Swelling of the feet and face.

(5) Any loss of blood no matter how slight.

(6) High blood pressure above 140 m.

(7) Persistent constipation.

(8) Epigastric pain—anæmia or jaundice.

The patient should be impressed with the necessity of informing the physician the moment any of the above symptoms appear and arrange for suitable treatment.

PUBLIC HEALTH
and
Insurance Companies

By P. P. SARADHI, B.A., B.L.,
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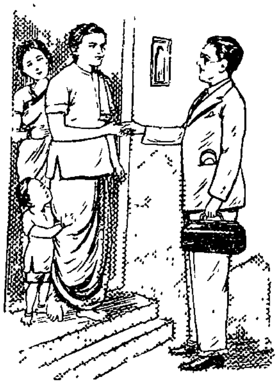
ROYAPETTAH, MADRAS.

It is an undisputed proposition that Insurance Companies cherish keen interest in the welfare of their policy-holders, for the obvious reason that preservation of their health and improvement in their longevity enures to the increase of the profit-aspect of their concerns. That is why we find some companies issue pamphlets about epidemics and other diseases. But they issue on some blue-moon days and not systematically. Of late, despite unwanted wars and inhuman atrocities, there is a greater and more acute value attached to life, a higher conception and a more delicate mission and function conceived of life. Naturally, the law of negligence has grown stiffer and more sensitised. That is mainly because life has become more complicated and the environment in which the stream of life passes on, is surcharged with greater possibilities of dangers and risks.



Insurance Doctor: "Hullo! How are you?"
Policy-holder: "Quite well; Thank you, don't worry."

Therefore, Insurance business is and would be benefited by positive action in developing public health, preventive and curative, and securing greater protection for public health and vitality. It is high time now, that the public and the Government discover in what way and extent they shoulder their responsibility and how they may be made to do so in future. It needs hardly be mentioned that any step taken *Suo Motu* is more appreciable than any done under a mandate of any kind. But if it comes to the stage of detecting any niggardliness or unwillingness, any order under the ruling powers of the Government would not be out of place.

In the absence of any scheme of National Health - Insurance, the underwriters are bound to partake in definite lines of health preservation. Educational propaganda is one line in which their co-operation is essential. If they do not take steps in that line, it would not be unjustified to demand payment for expenses either to the local bodies or the government which employ agents and public servants to carry on the task. The payment would be *pro-rata* the number of policy-holders living in respective regions and the total amount of insurance written for. It may be mentioned in this connection that "Film Shows" is one method of educational propaganda. The "Mutual Property

Life and General Insurance Company" has organised a series of Film Shows in Islington Central, Hall Drayton Park.

One main plank of their *relation to the Public* is their taking active steps for their public health. Another is creating a confidence in them that Insurance under-writers can even be trusted withHealth Insurance separate from,or combined with Life Insurance. Then it would be a practical proposition to write Insurance of Health also. As public health is inter-connected with safety of transport and safety in industries, it requires no great imagination to suppose, the under-writers would interest themselves more and more in social work and welfare propaganda.

As public health conscience and safety conscience has yet to develop in this country, where the masses grovel in ignorance and superstition, their part in improving public health and safety would be acclaimed as a God-send and they would be drawn to the field of Insurance more and more.

What is pregnant with great prospects is the system or scheme of Family-Insurance,and wherever possible,Group-Insurance. The rates would on the whole be less and so more economical on either side. Individual Life Insurance rates, must increase as civilisation grows more complex, and as the craze for speed tells more and more on the nervous system, and so Family Insurance and Group Insurance would soon be found more advantageous. In fact, it is getting very popular inAmerica and generally in the West. A recent pronouncement by the Alderman E. L. Hunt, at the Suffolk Insurance Institute,also draws particular attention to this aspect. He says wittily that where Insurance was concerned, the public had been spoiled; if Insurance were a little more difficult to obtain, it would be appreciated more. He stressed the merits of Group Life Insurance and Pension Schemes which made for happiness and contentmemt. Mr. Norman Walker's sound advice deserves to be enshrined as motto. Insurance work is coming more and more in touch with the Government and the public. Behind their efforts, there is something more than earning a living. There is a desire to give more service to the public and to raise the tandard of their calling.

The cultivation of missionary spirit would conduce to make them more popular in public eye. Yet another avenue which would lead to greater usefulness is *sports* in which physical demonstration of health and strength-development would enlist their enthusiasm and affection.

Pioneering humanitarian movements and anti-war propaganda are other fields where their usefulness to Society would be enhanced and appreciated.

Life Insurance without Medical Examination is defective

" ....The remedy lies not in abolishing medical examination but in devising an organisation by which medical opinion cannot be corrupted as far as humanly possible and by which the continued maintenance of the health of the insured persons can be made as one of the responsibilities of Insurance Companies in their own financial interests".—*The Indian Medical Journal,*

Topics from Medical and Health Periodicals

Health Propaganda in Asoka's Time

Asoka did much propaganda work in his time. When he did not have the radio to talk to his people at the farthest ends of his Empire, he sent out his officers to engrave the rules of health on the rocks, pillars, boulders and walls of caves in the language of every locality. He made it the business of his life to educate the people to be charitable and sympathetic. At the same time, the punishment inflicted on those who infringed the laws of cleanliness and good conduct was very severe.

"As is the king, so the people". The people used to emulate each other in public charities, the reminders of which you will see if you go beyond the city limits—the wells, the bathing ghats, the water troughs for cattle, the grooves of Mango and Banyan trees and the comfortable rest-houses called chatrams at a distance of half a kose, barely a mile and a quarter from each other.

It would be impossible in those days even for an ignorant mother to allow her child to soil the streets and bye-lanes. It was her first duty every morning to see that her street front is perfectly cleaned and adorned with floral designs, lest she should be chastised by her neighbours as a lazy and sinful woman. But to-day, even a decently dressed and educated woman in the city of Madras will fetch her child from inside and make it soil the clean and cemented pavements in front of her house.—Dr. A. Lakshmipathi, B.A., M.B. & C.M. in the *Journal of Ayurveda.*

The Effects of Civilization On Health

Civilisation has a harmful effect on the health of the people. There can be little doubt that it is faulty nutrition which lowers the health and vitality of the people. Nutrition in its widest sense depends upon food, water, oxygen and a free circulation of the blood.

In the first place the soil which ultimately produces our food is altered by chemical fertilizers which cause changes in its animal and vegetable products. Many of these products which ultimately form our food are then refined, adulterated, coloured, flavoured, frozen, bottled, boxed and tinned. Added to this, there is the adverse influence of advertising, ignorance of food values, and overshadowing all as far as the individual is concerned, the stringency of economic necessity. The net result is an enormous consumption of devitalised products and an under-consumption of natural unspoilt foods with their natural salts, vitamins and fibrous matter. This alteration in our food is undoubtedly the most important single factor that is lowering our health and breaking down our resistance to disease.

The next factor in nutrition is water. Our water supply should be pure, clean, and in ample amount. It is one of the essential factors that promotes health and helps to prevent disease. Instead of drinking pure water, we drink tea or alcohol.

Alcohol has been a beverage since the dawn of history. In large amounts it is a poison. The introduction of tea on the other hand is of comparatively recent date. Its consumption has been steadily increasing and it has led to an increased consumption of sugar. Tea is a stimulant and its excess leads to irritability, digestive disturbances, and other harmful effects. So that, tea and alcohol have manifest disadvantages as vehicles for the intake of water.

The third factor in nutrition is the oxygen we breathe in with the air. Here again civilisation is having its harmful effect, for the air we breathe is polluted with smoke and fumes of various kinds, and in enclosed places like railway trains, cinemas and theatres, with tobacco smoke as well. This pollution of the atmosphere is a factor in all lung complaints.

The fourth and the last factor in nutrition is a free and lively circulation. It is the blood circulating to every part of the body that carries the food constituents and oxygen to the tissues and which removes the waste products. If this circulation is sluggish and inefficient, altered functioning of the organs result and later structural changes. Everyone knows that circulation is maintained by the heart, but it is not so well realised that exercise also is of the utmost importance to the circulation, for every time a muscle contracts, the veins are compressed. By this means the blood is pushed back to the heart, so that the circulation is assisted and congestion relieved. Hence, the great importance of exercise. But here again the civilisation is our undoing ; for it is generally admitted that great numbers of people, perhaps the majority, get too little of exercise· They travel to and from their work in cars, buses and trains and very often, their work requires little of them in the way of physical exertion.

Thus the fundamental cause of the great amount of ill-health and disease we find around us, is faulty nutrition in the widest sense, which results from living in an unhealthy way. This faulty nutrition not only causes ill-health and disease by itself but also renders us more susceptible to external factors such as germs, mental stress, climatic changes, noise, and other harmful influences which are of secondary importance. It seems to be only reasonable, therefore, that in any particular illness, the habits of life should be considered in great detail and rectified when faulty.—Dr. T. T. B. Watson, M.B., B.Ch. in *The Medical World.*

Malaria

In the opinion of Col. Sinton, the probable toll of victims that malaria takes annually in India by its direct or indirect action,is at least 2,000,000.

Unlike other acute infections which periodically appear in epidemic form and sweep away multitudes of victims leaving the remaining population free and healthy, malaria, besides killing its victims, leaves those who escape death, maimed and crippled to swell the ranks of the unfit, unless they are thoroughly healed and satisfactorily cured. It is estimated that the number of persons suffering annually from malaria, in India, is about one hundred million. It can be well imagined how many of this number will be left maimed and crippled.—*Burma Medical Journal.*

Progress of Cremation

Lord Horder, in his presidential address to the cremation section of the burial and cremation authorities' conference at Southsea on 27th June, discussed the progress that cremation is likely to make over the next 20 years and the effects this progress may be expected to have on the life of the people. During the last year, he said, 16,312 persons were cremated in Britain, compared with 3,436 in 1926. In the same period the number of crematoria rose from 18 to 47. At the present rate of municipal enterprise, 250 crematoria might be expected in 20 years, and with an average of 1,000 cremations each the annual total would be 250,000, or half the present death-rate. Among the possible social and economic effects of this great change, there would first be a great saving in urban land at present used for cemeteries. On the basis of 1,000 graves to the acre, cremation would save 250 acres each year in urban areas. To put it another way, since the need of playing fields in a policy of national fitness was recognised, each crematorium would save the space of one football ground each year. There was also an economic factor. It had been estimated that there was an average loss, paid out of the rates, of more than £ 2 for every burial. The ratepayers of this country had to meet annually a bill of at least £ 1,000,000 for the perpetuation of the burial system. This, if his prophecy was well founded, could be halved in 20 years. What this figure represented in terms of vital services for the health and welfare of the living, or in terms of rates in heavily rated areas, could be imagined. The establishment of crematoria in every town would reduce transport charges, which at present operated against poor people, while the greatly increased number of cremations would enable fees and costs to be lowered. He was hopeful of an even greater reform—namely, the lowering of funeral costs. Many people had drawn attention to the high cost of dying, and it was generally accepted that something should be done to stop this mulcting of the public.—*Medical Officer.*

Soil Fertility

In a reprint of two articles from the *New English Weekly*, Sir Albert Howard deals with the relation between soil fertility and national health. He is concerned with the devitalisation of the soil that results from intensive cultivation. Modern methods are disturbing the just balance that should exist between soil and vegetation and tend to reduce the reserve of humus and render it inadequate. He holds that in Great Britain to-day the old, well-tried balance between crops and stock no longer exists and that humus alone can cure soil sickness once it has occurred. Sir Albert puts forward a scheme for renovating the land by the utilisation of waste. This method has been used with success in many parts of the world. The pamphlet is an interesting example of the complex nature of the problem of obtaining and maintaining national health and indicates that in the agriculturist we have a most important and practical ancillary medical officer of health.—*Medical Officer.*

Honey as a Carbohydrate in Infant Feeding

F. W. Schlutz and E. M. Knott report a study of the effect of using honey as a carbohydrate in infant feeding. Ten healthy male infants were studied for six months; formulas were restricted to evaporated or dried milk plus a carbohydrate, with additional supplements of pure vitamin or mineral solutions. The response to honey as the added carbohydrate was contrasted with the response to karo corn syrup. It was found that honey was well tolerated by the infants; it did not cause diarrhœa; it appeared to facilitate gain in weight, and the average daily weight increase was greater when honey was employed in the formula on a somewhat lower caloric intake. Studies of the blood sugar showed that honey was rapidly absorbed, but at the same time did not raise the blood sugar to higher levels than can be easily cared for by the body." The fall in blood sugar was steady and slow till the fasting level was reached. This effect on the blood sugar is explained by the fact that honey is a combination of two monosaccharides, dextrose and levulose. It is quickly digested and absorbed because of its dextrose content but does not raise the blood sugar to such a high level as other sugars containing larger percentages of dextrose. The levulose is somewhat more slowly absorbed and aids in maintaining the blood sugar. These studies indicate that honey is a type of carbohydrate "well suited to the infant's needs" and may be recommended for wider use in infant feeding.—*Practical Medicine.*

Modern Methods

In olden days, when folks wers ill, they cured them with a draught and pill, but now they say: "Without a doubt, the tonsils surely must come out."

But when the tonsils have departed, the patient still seems chickenhearted. "There's poison here, 'tis very clear, the teeth must go, I really fear. It's pyorrhœa in the gums that makes the aching in the thumbs." 'Tis sad to see the patient mumble, but sweet to know she doesn't grumble.

But now the patient seems so weak, we'll let a famous doctor speak. "The thing that's wrong I surely know: appendix bad, 'twill have to go. The teeth are gone, the tonsils out, all for the best without a doubt; there's something more that must be done, then life on wheels will truly run."

But if her ills were cured just so, the trouble is, we'll never know, for with these remedies applied, the gentle patient quietly died!— Beth Coombe Harris.—*Health for All.*

Snuff

Snuff may perhaps come back into its own again. Sir Buxton Brown, who has had 60 years' experience, states that it is a sovereign prophylactic against colds in the head which, we are glad to say, he does not refer to as nasal catarrhs. And there are some who say that a pinch of snuff is the surest way to make certain of the delivery of the placenta. It can also be used to annoy those whose appendices have recently been removed but we have no actual experience of its efficacy in this respect. — *Medical World.*

Smoking in the Public Schools

"........I wish that the articles on tobacco, coffee, and tea in the last two issues could be read by everybody. Some teachers herein——allow boys and girls to smoke in the class rooms, and even some of the teachers smoke while teaching classes, or conducting an examination. The condition is terrible", writes a Teacher in a State College, to the Editor of *Good Health, U.S.A.*

The Editor, commenting on it, describes: That great modern Cyclops, the tobacco industry, has for its goal the enslavement of every man, woman and child of America by the tobacco habit. The government finds that the revenue paid by growers, manufacturers, and dealers such a handy contribution to the treasury in this day of climbing budget deficits that for the sake of temporary financial help, the tobacco manufacturers are permitted to spread before the readers of nearly every newspaper and magazine in the country most captivating and alluring representations of their soul-and body-destroying wares. Thus uninformed, unwarned, and innocent youth are beguiled into one of the most disgusting and deadly habits ever acquired by human beings. In the meanwhile, the sextons are busy digging graves in the country's cemeteries to bury the victims of the noisome smoke habit, which, while amassing mountainous heaps of gold for the tobacconists, is filling our lunatic asylums and institutions for imbeciles and idiots with tobacco blighted boys and girls, making their fathers and mothers prematurely old, and helping to send 300,000 Americans—largely men—to the undertaker, done to death by that master killer, heart disease. If any other enemy of human life were doing one-tenth the damage that tobacco has been clearly proved to be responsible for, the government would be organizing bands of experts to fight it.

The tobacco industry is the greatest killing organization in the world. The lives destroyed and the harm done by all the armies in the world combined, will not begin to equal the damage inflicted upon the human race by the combined activity of the cultivators, manufacturers, and distributors of tobacco.

How long will human society endure this ghastly sacrifice to Mammon? Professional politicians and servile money grubbers will not be expected to place obstacles in the way of the tobacco Juggernaut, but certainly teachers, whose duty it is to help prepare American youth for life as citizens, as fathers and mothers, may justly be expected to make some effort for their protection against this gigantic evil. But it begins to look as though our educators, in whose hands rests the last hope of the world, since parents have so largely laid down on their job, are joining the multitude in the downward march."
—*Good Health. (U.S.A.)*

Health Education

Dr. G. K. Bowes. M.O.H., reporting as medical officer of health for Bedford, gives no encouragement to those who organise health education campaigns, health service publicity campaigns and the like. "For the past months," he writes "in many parts of the country, a campaign of posters, leaflets, etc., etc., has been in full force with the object of encouraging the wider use of health services. In advising the Committees concerned as to whether the town council should take part in such a campaign, your medical officer of health said that in his opinion such a campaign would be largely useless in respect of the object

aimed at, and that it would be difficult to prevent the posters from giving evidence of the childishness and vulgarity which are associated with much commercial advertisement. So far he has seen nothing to make him change his opinion. To express such a view is parhaps to confess oneself, not to be in the van of progress, but rather a voice crying in the wilderness. But the question may really be asked whether, if a thing is to be done, it is not better to devote energy to doing it, rather than to advertising, to all who choose to hear, that it has been done. On the answer given to this question depends the opinion formed as to the wisdom or foolishness of health campaigns."—*The Medical Officer.*

Book Reviews

Builders of Health—By David Dietz, English Edition, revised by A. W. Haslette—Published by Messrs. George Allen & Unwin Ltd. London. Price 12/6 net.

This book relates the fascinating story of how medical science is penetrating the secrets of the human body and applying this new knowledge to the conquest of disease. Time was when disease was held to be the work of demons and wizards sprang up in large numbers to practise witch-craft to drive them away, but without success. But to-day, the knowledge of chemical control of the body's working has come apace and the medical *magician goes by different names viz.*, the physiologist, the pathologist, the bio-chemist, the bacteriologist, the immunologist, the endocrinologist and so on. Still, heart disease, cancer, tuberculosis, pneumonia, cerebral haemorrhage, kidney disease and preventable accident, which Mr. David Dietz has named, "The Seven Horsemen of Death" take a heavy toll. In "Builders of Health", the author has narrated the story of medical research in a skilful manner in homely style which must appeal even to laymen. The book is nicely printed and neatly bound and abounds with illustrations. We heartily commend it to our readers.

Universal Uncooked Food—By B. S. Gopala Row, N. D. D. D. T., Nature Cure Advocate, Rajamundry. Price Rs. 3-8-0, Card Board Binding. Rs. 4/- Full Calico Binding. Postage extra.

This book contains simple, practical methods for achieving human health and efficiency. Many original ideas, based *on research, about nutrition and* vitamin theories are also incorporated in this book. The book will prove of immense use to those who prefer Nature Cure methods to drugging. The style is lucid and easy and will be found intelligible even to laymen. The get-up is good.